

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A dynamic gauntlet comprising:

5 a base adapted for securement to at least one of a wrist and an arm of a wearer;
and

a flexible hand piece including a plurality of finger elements, each finger element receiving and at least partially extending or flexing a finger, said hand piece including a common piece connecting said plurality of finger elements, at least one of said base and said hand piece
10 constructed of an elastomeric material and including an anchor having an attachment element extending toward the other of said base and said hand piece, the other of said base and said hand piece including an attachment area, complimentary to said attachment element,

wherein the attachment element is releasably positioned at a pre-selected position on the attachment area to provide a tension in the anchor, thereby reconfiguring at least one of
15 the fingers and the hand of the wearer.

2. The dynamic gauntlet of claim 1 wherein at least one of the plurality of finger elements is constructed of a strip of elastomeric material spiraled to form a tube within which a finger is disposed.

3. The dynamic gauntlet of claim 1 wherein the hand piece includes an anchor
20 extending toward the base on the dorsal side of the hand.

4. The dynamic gauntlet of claim 1 wherein the hand piece includes an anchor extending toward the base on the ulnar side of the hand.

5. The dynamic gauntlet of claim 1 comprising a thumb piece secured to the thumb and separate from the hand piece.

6. The dynamic gauntlet of claim 5 wherein the thumb piece includes a secondary anchor including a secondary attachment element that is releasably positioned at a pre-selected position on the attachment area to provide tension in the secondary anchor, thereby reconfiguring the thumb.

7. The dynamic gauntlet of claim 5 wherein the thumb piece includes a secondary attachment area and wherein at least one of the hand piece and the thumb piece includes a secondary anchor including a secondary attachment element that is releasably positioned at a pre-selected position on the attachment area to provide tension in the secondary anchor thereby reconfiguring the thumb.

8. The dynamic gauntlet of claim 1 wherein the anchor includes a first end fixedly joined with at least one of the hand piece and the base and a second end that includes the attachment element, said second end releasably positioned adjacent said other of said hand piece and said base.

9. A therapeutic gauntlet comprising:
a base secured to at least one of an arm and a wrist, said base including a plurality of attachment points, said base associated with a wrist cornerstone of the hand;
extending means for at least partially extending a digit of a hand, said extending means associated with at least one of a thumb cornerstone of the hand and a finger cornerstone of the hand;

tension means for providing a pre-selected tension on said extending means to reconfigure at least one of the digit and the hand, said tension means constructed substantially only from an elastomeric material; and

attachment means for releasably attaching said tension means to at least one of the plurality of attachment points on said base, wherein attachment of the tension means at different attachment points adjusts the tension transmitted through said tension means to said extending means, wherein at least one of the digit and the hand is reconfigured in a selected splinting position, whereby the spatial relationship between at least two of the wrist cornerstone and the at least one of the thumb cornerstone and the finger cornerstone is modified.

10 10. A therapeutic gauntlet of claim 9 wherein the extending means is constructed of a strip of said elastomeric material spiraled to form a tube that substantially surrounds a portion of the digit.

11. A therapeutic gauntlet of claim 9 wherein the extending means is tube-shaped and adapted to receive a digit.

15 12. A therapeutic gauntlet of claim 9 wherein the extending means includes a hand piece and a thumb piece, the hand piece including a plurality of finger elements that each receive a finger, the thumb piece including a thumb element that receives a thumb.

13. A therapeutic gauntlet of claim 12 wherein the tension means extends from at least one of the hand piece and the thumb piece toward the base.

20 14. A therapeutic gauntlet of claim 9 wherein the extending means extends the proximal interphalangeal joint of at least one of a finger and a thumb in a substantially extended configuration.

15. A therapeutic gauntlet of claim 9 wherein the extending means is a hand piece including at least one digit element.

16. A method for providing therapy to a hand comprising:

securing to at least one of a wrist and an arm a base;

5 securing to a digit a first piece including a common piece and a digit element, at least one of the base and the first piece including an anchor having an attachment element, the other of the hand piece and the base including an attachment area; and

releasably securing the attachment element at a pre-selected location on the attachment area to provide a tension in the elastomeric anchor wherein said tension is transmitted
10 to at least one of the hand and the digit to reconfigure at least one of the hand and the digit.

17. The method of claim 16 wherein the base is associated with a wrist cornerstone of the hand, and wherein the first piece is associated with at least one of a thumb cornerstone of the hand and a finger cornerstone of the hand.

18. The method of claim 16 wherein the first piece is at least one of a thumb piece
15 and a hand piece including another anchor.

19. The method of claim 18 wherein at least one of the hand piece and the thumb piece includes another attachment area, comprising releasably securing another anchor to another attachment area to reconfigure at least one of the fingers, the thumb and the hand.

20. A method for reconfiguring a hand comprising:

20 securing at least two of a base, a hand piece including at least one finger element, and a thumb piece to at least one of a wrist, a hand, and a thumb, at least one of the base, the hand piece and the thumb piece constructed from an elastomeric material and including an anchor having an attachment element extending toward another of said base, said hand piece and

said thumb piece, at least one of the base, the hand piece and the thumb piece having an attachment area complimentary to the attachment element, said base associated with a wrist cornerstone of the hand, said hand piece associated with a finger cornerstone of the hand, said thumb piece associated with a thumb cornerstone of the hand;

5 securing the attachment element to the attachment area at a pre-selected location to provide a tension between at least two of the base piece, the hand piece and the thumb piece, wherein the tension changes the spatial relationship between at least two of the wrist cornerstone, the finger cornerstone and the thumb cornerstone, wherein the configuration of at least one of the hand, the thumb and a finger is altered.

10 21. A method for reconfiguring a hand comprising:

 securing at least two of a base, a hand piece including at least one finger element, and a thumb piece to at least one of a wrist, a hand and a thumb, at least one of said base, said hand piece and said thumb piece constructed from an elastomeric material and including a plurality of anchors, each of said plurality of anchors having an attachment element, each of said
15 plurality of anchors extending toward another of said base, said hand piece and said thumb piece, at least one of the base, the hand piece and the thumb piece having a plurality of corresponding attachment areas complimentary to the plurality of attachment elements;

 securing a first attachment element to a corresponding attachment area at a pre-selected location to provide a first force vector; and

20 securing a second attachment element to a corresponding attachment area to provide a second force vector, the first force vector and second force vector summing to yield a third force vector that acts on at least one of the hand, the thumb and a finger, whereby said at least one of the hand, the thumb and a finger is selectively positioned in a desired configuration.